

R E M A R K S

Claims 1-3 and 5-10 are now in this application, and are presented for the Examiner's consideration.

Objection to Drawings

The drawings were objected to under 37 CFR 1.83(a) as not showing the claimed feature of "a common drive mechanism for coupling the levers of the actuators of each pair of brake shoes."

The basis of this objection is found in the remarks in the Office Action regarding the rejection of the claims under 35 U.S.C. §112, first paragraph.

In this regard, Fig. 2 shows a pair of brake shoes 26 and one actuator 24 having a lever 30 and acting on both brake shoes. As shown in Fig. 1, there are six actuators in total, forming three pairs, and the two actuators of each pair of actuators (not of brake shoes) are coupled by a common drive mechanism 32. The Examiner is correct that none of the drive mechanisms 32 couples the actuators of each (all six) pair of brake shoes.

In this regard, claim 1 has been amended 1 by reinserting the language of original claim 1, according to which a common drive mechanism is provided for "coupling the levers of the actuators of said at least two pairs of brake shoes".

It is submitted that this feature is clearly shown in the drawings, and that no new drawing is required.

Accordingly, it is respectfully submitted that the objection to the drawings has been overcome.

Rejection of claims under 35 U.S.C. §112, first paragraph

Claims 1-3 and 5-10 were rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement.

Specifically, the objection relates to the aforementioned language in regard to the objection to the drawings. It was stated that applicant argues that there should be two drive mechanisms since there are two pairs of brake shoes. However, it was further stated that, as shown in Figs. 1 and 2, for two (2) pairs of brake shoes 12A and 12B, there is only one (1) common drive mechanism (32) and only one (1) actuator 24 as shown in Fig. 2.

In this regard, as aforementioned, the language of claim 1 has been amended by reinserting the language of original claim 1, according to which a common drive mechanism is provided for "coupling the levers of the actuators of said at least two pairs of brake shoes".

Accordingly, it is respectfully submitted that the rejection of claims 1-3 and 5-10 under 35 U.S.C. §112, second paragraph, has been overcome.

Prior Art Rejections

Claims 1-3 and 5-10 were rejected under 35 U.S.C. §103(a) as being obvious from U.S. Patent No. 2,768,710 to Butler in view of German Patent No. DE 20203794 to Argady et al. However, U.S. Patent Publication No. 2005/0034937 was used in the rejection in place of the Argady et al German patent because it is in the English language and is the English language equivalent of the German document.

However, as clearly indicated in the last-filed Amendment, the common drive mechanism is coupled to the respective two levers in such a way that each lever will simultaneously act as a counter-bearing for the drive mechanism of the other lever. Thus, as shown in Fig. 1 of the present application, the drive mechanism 32 operates to rotate the two levers 30 connected thereto in opposite directions, so that the reaction forces of the two brake mechanisms act upon the drive mechanism 32 in opposite directions and cancel each other, without any load being applied to the machine frame. The present application also discloses at page 2, line 36 - page 3, line 5 that the two levers can project from their saddles in opposite directions, that is,

one inwardly and one outwardly, so that the levers are pivoted in the same rotary sense. However, in such case, one lever would still act as a counter bearing for the other lever.

In the second paragraph on page 6 of the Office Action, it was stated that the meaning of the language "counter bearing for the drive mechanism for adjusting the other lever" is unclear since this claimed feature was not explained in the specification but only recited. The specification mentions this feature at page 2, line 14. However, in the same paragraph, the Examiner suggests that some structure be added, for example, rotating in opposite directions.

In view of the fact that the levers can be pivoted in the same rotary sense (page 2, line 36 - page 3, line 5), applicant has not claimed the two levers moving in opposite directions. However, in both instances of the present application, the push rods 38 are moved in opposite directions, and this movement of the push rods in opposite directions functions to pivot the levers such that each lever will simultaneously act as a counter bearing for the drive mechanism for adjusting the other lever.

Claim 1 has therefore been amended to recite the structural limitation that the common drive mechanism includes a first element (one push rod 38) engaged with one lever (30) and which moves in a first direction to pivot the one lever and a second element (the other push rod 38) engaged with the other lever (30)

and which moves in a second direction opposite to the first direction to pivot the other lever such that each lever will simultaneously act as a counter bearing for the drive mechanism for adjusting the other lever.

Thus, claim 1 now recites an important structural distinction over Butler, since Butler does not include any elements of the common drive mechanism that move in opposite directions. It is this structure that provides for the counter bearing.

This aspect is clearly not disclosed or even remotely suggested by Butler nor by any of the other cited references, and therefore, constitutes an inventive step. In fact, Butler teaches that the levers operate in the same direction, and that the elements of the common drive mechanism for the levers also operate in the same direction, thereby being completely contrary to the present claimed invention.

As the Examiner points out correctly, Butler discloses the common drive mechanism 62 coupling the levers of the actuators of two pairs of brake shoes in such a way that the two levers are acting together to evenly apply breaking force. However, to that end, both levers 52 in the disk brake of Butler have to be pivoted in the same direction (clockwise in Fig. 3) by the common drive mechanism 62. This means that the levers 52 cannot act as mutual counter-bearings, so that the common drive mechanism 62

requires an extra counter-bearing (lugs 61) for absorbing the reaction forces of the two levers 52. In contrast, as is shown in Fig. 1 of the present application, the reaction forces of the two levers connected by a common drive mechanism 32 cancel each other, so that no separate counter-bearing is necessary.

According to column 3, lines 68 to 71 and column 4, lines 7 to 17 of Butler, the two pairs of brake shoes are actuated by the same operating rod (not shown), which causes the levers 69, 70 (Figs. 2 and 3) to rotate in the same direction, so that, via the shafts 62, 66, the two levers 52 are also rotated in the same direction to press the brake shoes against the brake disk. The ends of the levers 69, 70 are connected together by a bridge piece 71. Because of this arrangement, with all parts moving the same direction, the reaction forces of both pairs of brake shoes have to be supported by one and the same frame member which must therefore have a high rigidity.

This is the essential and decisive distinguishing feature of the present claimed invention.

With the present claimed invention, because of the push rods 38 moving in opposite directions, the two levers 30 are rotated in such a manner that the reaction forces of the two brake mechanisms act upon the drive mechanism 32 in opposite directions and cancel each other, without any load being applied to the machine frame.

If the Examiner is of a different opinion, the Examiner is requested to specifically show where in Butler there is any disclosure for a common drive mechanism for the levers thereof in which the common drive mechanism includes a first element engaged with one lever and which moves in a first direction to pivot the one lever and a second element engaged with the other lever and which moves in a second direction opposite to the first direction to pivot the other lever such that each lever will simultaneously act as a counter bearing for the drive mechanism for adjusting the other lever.

Further, this feature is not be taught or suggested by Argady et al either, because this Argady et al only shows a single lever and no second lever which could serve as a counter-bearing therefor. Therefore, even if Argady et al is combined with Butler, it would not cure the aforementioned deficiencies of Butler.

It was stated that Argady et al shows a push rod. However, even if push rods as taught by Argady et al were used in Butler, the push rods would push in the same direction and a support 30 (Fig. 1 of Argady et al) would still be required as a counter-balance.

Accordingly, it is respectfully submitted that the rejection of claims 1-3 and 5-10 under 35 U.S.C. §103(a) has been overcome.

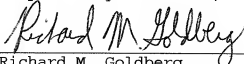
If the Examiner has any comments, questions, objections or recommendations, the Examiner is invited to telephone the undersigned at the telephone number given below for prompt action.

In the event that this Paper is late filed, and the necessary petition for extension of time is not filed concurrently herewith, please consider this as a Petition for the requisite extension of time, and to the extent not tendered by check attached hereto, authorization to charge the extension fee, or any other fee required in connection with this Paper, to Account No. 07-1524.

The Commissioner is authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 07-1524.

In view of the foregoing amendments and remarks, it is respectfully submitted that Claims 1-3 and 5-10 are allowable, and early and favorable consideration thereof is solicited.

Respectfully submitted,



Richard M. Goldberg
Attorney for Applicant
Registration No. 28,215

25 East Salem Street
Suite 419
Hackensack, New Jersey 07601
TEL (201) 343-7775
FAX (201) 488-3884
e-mail: goldbergpat@earthlink.net